

## REMARKS

The present application has been reviewed in light of the Office Action dated June 19, 2003. Claims 1-51 and 54 are presented for examination and have been amended as to formal matters and/or to define Applicant's invention more clearly. Claims 1, 17-20, 36, and 54 are in independent form. Favorable reconsideration is requested.

The Office Action states that Claim 54 is objected to for certain informalities and is rejected under 35 U.S.C. § 101 as not being directed to statutory subject matter. Claim 54 has been reviewed and amended, as deemed necessary, with special attention to the points raised in sections 9 and 10 of the Office Action. More specifically, Claim 54 has been amended to be directed to a hard copy document that incorporates a user interpretable functional link that provides traversable physical paths spanning pages of the hard copy document. The traversable physical paths impart functionality to the hard copy document, and such paths are respectfully submitted not to read upon footnotes in a generic hard copy document. Additionally, the noted typographical error in Claim 54 has been corrected. Accordingly, Applicant submits that amended Claim 54 is directed to statutory subject matter, and respectfully requests withdrawal of the objection and the rejection.

The Office Action states that Claims 1, 2, 8-10, 12, 13, 17-21, 27-29, 31, 32, 36, 37, 43-45, 47, 48, and 54 are rejected under 35 U.S.C. § 103(a) as being unpatentable over European Patent Application No. EP 0 775 962 A2 (Yoda); and that Claims 3-7, 11, 14-16, 22-26, 30, 33-35, 38-42, and 49-51 are rejected under § 103(a) as being unpatentable over Yoda in view of U.S. Patent No. 5,337,161 (Hube). Applicant respectfully traverses the rejections and

submits that independent Claims 1, 17-20, 36, and 54, together with the claims dependent therefrom, are patentably distinct from the cited prior art for at least the following reasons.

An aspect of the present invention set forth in Claim 1 is directed to a method of creating a document suitable for hard copy reproduction. According to the method, information from at least one electronic source document is received. The information includes a plurality of referential links establishing corresponding referential paths between components of the information. The method also defines a physical structure of the document suitable for hard copy reproduction and sufficient to reproduce the information, and defines a plurality of document links associated with the physical structure and corresponding to the referential links. The method further assigns a user interpretable functional link to each document link, with each functional link forming a traversable physical path in the document between components of the information, and arranges a number of the functional links by assigning plural ones of the document links to at least an individual one of the functional links.

Yoda discloses a hard copy document reproduction arrangement in which hypertexted information contained at various network locations may be retrieved in a non-linear fashion and formed into a linear document incorporated in a table-of-contents page that references other linked pages (see Fig. 8). As discussed at column 5, lines 33 to 48, Yoda relies upon page numbering in the hard copy document to form a reference from one part of the document to another, in order to replicate non-linear referential links contained in electronic source documents obtained from the network.

Nothing has been found in Yoda that is believed to teach or suggest a method

of creating a document suitable for hard copy reproduction, wherein the method includes "receiving information from at least one electronic source document, the information including a plurality of referential links establishing corresponding referential paths between components of the information," and "defining a physical structure of the document suitable for hard copy reproduction and sufficient to reproduce the information," and "defining a plurality of document links associated with the physical structure and corresponding to the referential links," and "assigning a user interpretable functional link to each document link, wherein each functional link forms a traversable physical path in the document between components of the information," and "arranging a number of the functional links by assigning plural ones of the document links to at least an individual one of the functional links," as recited in Claim 1.

Applicant submits that Yoda is silent regarding a user interpretable functional link that forms a traversable physical path in a hard copy document. Such a functional link acts to guide a reader of the document from one component thereof to another linked component.

The Office Action states that Yoda discloses a page number generation feature, and alleges that such a feature reads upon the claimed "user interpretable functional links." Applicant respectfully submits, however, that although a page number (or footnote) may be user interpretable, and when used in a table of contents may provide a reference from one part of a document to another, a page number (or footnote) does not represent a functional link in the manner claimed in Claim 1. More specifically, interpreting a page number as a functional link ignores a significant functional distinction between the physical structure of the document and electronic information that is sourced and intended to be reproduced in that document.

In this regard, the method of Claim 1 includes receiving "information from at least one source document," wherein, *inter alia*, the information includes referential links and components. In step (b) of Claim 1, a physical structure of the document is defined. For example, the physical structure is equivalent to the various pages of the document to be printed.<sup>1</sup> Therefore, the method of Claim 1 clearly distinguishes the physical structure of the document, which is sufficient to reproduce the information and which may include multiple pages, from links formed on the pages and which create a path from one component of the information to another component of the information.

Applicant submits that the Yoda system can only include a single page number on each page of a hard copy document. In contrast, the method of Claim 1 allows each page of a hard copy document to be numbered in a traditional fashion, as in Yoda, and also allows one or more separate functional links to be included, each formed by a traversable physical path in the document linking one component of received information to another component of the received information. It is respectfully submitted that page numbers do not link components of information, but merely provide a generalized reference to all components of information that may be present on that page. It follows, therefore, that page numbers as utilized in the Yoda system are part of the "physical structure" of a document, but do not constitute "information including a plurality of referential links establishing corresponding referential paths between components of the information."

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<sup>1</sup> The examples provided herein are intended for illustrative purposes. It should not be construed that the present invention is limited in any way to any details described in connection with the illustrative examples.

Further, nothing in Yoda is believed to disclose or suggest that page numbers of a hard copy document are obtained from an "electronic source document." Furthermore, there is no disclosure or suggestion in Yoda to create separate links between components of information printed on various pages. As discussed above, the page numbers as utilized in the Yoda system merely reference all information contained on any one page.

As one of ordinary skill will understand, the physical structure of any document will be dependent upon a number of factors, two of which include volume of content to be reproduced and the manner in which that information is reproduced. One manner in which the reproduction of information may be varied is by varying the font size of the information. For example, varying a text size from 10 point to 14 point could drastically change the total number of pages in a document and the specific components of information that may be reproduced on any one page. With the Yoda system, as interpreted in the Office Action, every page remains numbered and the links formed by the table of contents or footnotes merely refer a reader to a relevant page at which information may be obtained.

In contrast, with the method of Claim 1, if the font size is changed and the number of page changes, the links before and after the change continue to link the same individual components of information, even if such links traverse different parts (pages) of the hard copy document.

Page 5 of the Office Action includes a statement that it "would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Yoda to provide a way to generate page numbers incorporated into each printed linked document to

indicate the sequence of linked documents in order to print a hypermedia document in a format that a user can easily use." Applicant respectfully submits that the above statement would be obvious to one of ordinary skill, because that is indeed what Yoda is understood to disclose. Yoda does not, however, disclose or suggest incorporating functional links, which form traversable physical paths, within the components of information contained in a document. Yoda's page numbers are distinct from, and independent of, content contained on any one page. As such, Yoda's page numbers provide no more than a generalized reference as is found in traditional publication arrangements.

Accordingly, Applicant submits that Claim 1 is patentable over Yoda and respectfully requests withdrawal of the rejection under 35 U.S.C. § 103(a). Independent Claims 20 and 36 include similar receiving, defining, assigning, and arranging features as those of Claim 1, and therefore are believed to be patentable for at least the above reasons.

An aspect of the present invention set forth in Claim 17 is directed to an authoring system for creating a linear document that includes non-linear referential links. The system includes means for specifying a linear document structure and hyperlinks of a hypermedia source document; means for associating the hyperlinks with physical links able to be formed in pages of the linear document; means for modelling each physical link using a one-dimensional vector reproducible as a traversable physical path in the linear document; and means for arranging an assignment of the physical links to one or more of the hyperlinks.

One of the notable features of Claim 17 is that each physical link is modelled using a one-dimensional vector, which is reproducible as a traversable physical path in a linear

document. Nothing in Yoda is believed to teach or suggest an authoring system for creating a linear document that includes non-linear referential links, wherein the system includes "means for modelling each physical link using a one-dimensional vector reproducible as a traversable physical path in the linear document," as recited in Claim 17.

As discussed above, Yoda is silent regarding a traversable physical path.

Accordingly, Applicant submits that Claim 17 is patentable over Yoda and respectfully requests withdrawal of the rejection under 35 U.S.C. § 103(a). Independent Claims 18, 19, and 54 include a similar feature of a traversable physical path. Therefore, those claims also are believed to be patentable for at least the above reasons.

Hube discloses an arrangement by which a tab may be formed on a printable document, which incorporates a text portion corresponding to a heading taken from a table of contents. Applicant submits that a combination of Yoda and Hube, assuming such combination is even permissible, fails to disclose or suggest the feature of a traversable physical path formed in a document which links one component of information to another component of the information. As understood by Applicant, Hube teaches that various tabs are formed, one to a page, and this correlates with the page numbering of Yoda. The tabs of Hube therefore provide no additional function to the arrangement of Yoda that would not ordinarily be expected from any tab contained in a document such as a dictionary or an address book.

In summary, Yoda only discloses the use of page numbers as a reference to all contents on a page, which contents must then be reviewed by a reader to identify the specific content that may be desired. Hube discloses documents in which certain pages include

protruding tabs to provide a ready reference to those particular pages. In neither Yoda nor Hube is there any disclosure or suggestion of a functional link that forms a traversable physical path in a document between components of information from an electronic source document. The page numbers of Yoda, whether or not they are extended to incorporate or form part of the tabs of Hube, only provide a generalized reference to content contained on a particular page. Page numbering, as discussed above, can vary depending upon a selection of a reproduction style. In contrast, according to the present invention, individual components of information remain linked by virtue of a traversable physical path irrespective of any style that may be reproduced. With Hube and Yoda, at best a table of contents will refer a reader to a page, perhaps identified by a tab that contains information from the table of contents.

One of the beneficial features of the present invention is that the incorporation of a traversable physical path, some of which may be nested, allows a reader to follow an individual path across a page, and perhaps across a number of pages, in order to link one portion of a body of information to another portion of the body of information. This can be done without any reference to page numbering, because any page numbering in the present invention relates to the physical document structure and not to document links formed within a physical structure.

Accordingly, the independent claims also are submitted to be patentable over a combination of Yoda and Hube.

The other rejected claims in this application depend from one or another of the independent claims discussed above, and therefore are submitted to be patentable for at least the same reasons. Since each dependent claim is also deemed to define an additional aspect of the

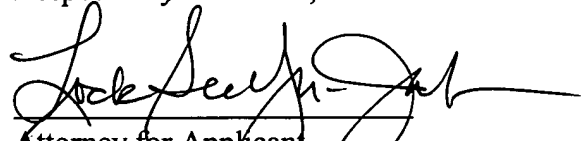


invention, individual reconsideration of the patentability of each claim on its own merits is respectfully requested.

In view of the foregoing amendments and remarks, Applicant respectfully requests favorable reconsideration and early passage to issue of the present application.

Applicant's undersigned attorney may be reached in our New York Office by telephone at (212) 218-2100. All correspondence should continue to be directed to our address listed below.

Respectfully submitted,

  
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